

UNIT 1: LINEAR SYSTEMS

Date	Textbook Reference	Topic	Homework	Questions to Redo
	Appendices 1 and 2 5, 8 & 9 6 and 7	Diagnostic & REVIEW assigned <ul style="list-style-type: none"> ➤ Integers, fractions, & operations ➤ Algebraic expressions: expand, simplify, evaluate, solve ➤ Methods of graphing linear equations 	<u>Get course outline signed</u> <i>Getting Started</i> questions Handouts Review grade 9 skills Textbook: pg. 470 #1-6	
		3 Methods of Graphing	Handout	
	1.3	Solving Linear Systems by GRAPHING <ul style="list-style-type: none"> ➤ Use slope y-intercept ($y=mx+b$) 	Day 1) p. 26 # 1, 5, 3ab (3c use Desmos online) Day 2) p. 27 # 4, 7, 9, 11, 12, 14	
	1.4	Solving Linear Systems using SUBSTITUTION	p. 39 # 4de, 7, 9, 12, 16	
	1.5 1.6	Solving Linear Systems using ELIMINATION	p. 55 # 9, 11, 15 p. 46 # 5 Quiz	
	1.7	Exploring Linear Systems <u># of solutions:</u> <ul style="list-style-type: none"> ➤ One solution (one POI) ➤ No solution (parallel lines) ➤ Infinite # of solutions (coincident lines) 	p. 59 #1, 2, 3abch, 4, 5, 6 Mastery # 1 (<i>Study using link below (also found on my website)</i>)	
	1.1 1.2	Modelling Linear Systems Word Problems Application Types <ul style="list-style-type: none"> ➤ Money, Number ➤ Percent, Mixture ➤ Speed, Distance, Time 	Word Problems Handout p. 27 # 7, 8, 9, 12 p. 39 #7, 11, 12 p. 55 #9, 13, 15	
		Review for Test (<i>can start early</i>)	Text p. 62 # 1 to 18 Practice Test p. 64 # 1 to 9	
Unit Test on _____				

UNIT 2: ANALYTIC GEOMETRY

Date	Textbook Reference	Topic	Homework	Questions to redo
	2.2	Length of a Line Segment and Distance to a point $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$	pg. 87 #5ii b,e #9, 12ab, 13, 14	
	2.1	Midpoint $M\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$	Midpoint p. 78 # 2, 4def, 5, 6, 8, 9	
	2.3	Equation of a Circle $x^2 + y^2 = r^2$	p. 91 # 2ce, 4, 5, 10, 11, 16	
	2.4	Classifying Figures on a Coordinate Grid	p. 103 # 4, 6b, 7, 8, 10, 12, 16c, 18 Quiz	
	2.5	Verifying Geometric Properties	p. 109 # 3, 4, 10, 11, 13, 15	
	2.6	Geometric Properties <ul style="list-style-type: none"> ➤ Circumcentre (Perpendicular bisectors) ➤ Centroid (Medians) ➤ Orthocentre (Altitudes) 	p. 120 # 1 to 5, 9, 10, 11, 17 Mastery # 2	
	2.7	Using Coordinates to Solve Problems	p. 120 # 7, 9 to 11, 15, 16, 17	
		Review for Test (<i>can start early</i>)	Text p. 124 # 2, 3, 7, 9, 11, 13, 14, 19, 20, 22, 23.	
Unit Test on _____				

UNIT 3: QUADRATICS 1 - FACTORING ALGEBRAIC EXPRESSIONS

Date	Textbook Reference	Topic	Homework	Questions to redo
	3.4	Expanding Algebraic Expressions <ul style="list-style-type: none"> ➤ Distributive property ➤ FOIL 	p. 166 # 2, 3, (4-7)ace, 9, 10 Mastery # 3	
	4.1	Common Factoring and Grouping <ul style="list-style-type: none"> ➤ Greatest Common Factors (GCFs) 	p. 203 # 7-10, 20	
	4.3	Factoring Simple Trinomials $y = x^2 + bx + c$ <ul style="list-style-type: none"> ➤ Sum/Product rule ➤ Arrays (Area models) 	p. 211 # 5, 7 – 9, 12, 19, 20	
	4.4	Factoring Complex Trinomials $y = ax^2 + bx + c$, where $a \neq 1$ <ul style="list-style-type: none"> ➤ Decomposition ➤ Arrays (Area models) 	p. 222 # 2,5-7, 10, 11,15, 17 Mastery # 4	
	4.5	Factoring Special Cases <ul style="list-style-type: none"> ➤ Perfect Square Trinomials $(a + b)^2$ and $(a - b)^2$ ➤ Difference of Squares $(a + b)(a - b)$ ➤ 	p. 230 # 5 - 7, 10, 11 Handout Quiz	
	4.6	Applications of Factoring <ul style="list-style-type: none"> ➤ Selecting a strategy to factor ➤ Area/Volume applications ➤ X-intercepts of a quadratic <ul style="list-style-type: none"> ➤ Zeros ➤ Break-even points 	Factoring Application: p. 167 # 8, 13, 16 p. 204 # 11, 19 p. 223 # 9, 13ab (i) p. 231 #13ab (i), 14 p. 236 # 11 – 13	
		Review for Test	p. 186 #13a 14 15 p. 187 #6 p. 240 #1 to 3 5 6 7ab 8a 10 11a 12-18 Make up Mastery	
Unit Test on _____				

UNIT 4: QUADRATICS 2- FACTORED FORM

Date	Textbook Reference	Topic	Homework	Questions to redo
	3.1	Intro to Quadratic Relations <ul style="list-style-type: none"> ➤ Standard Form: $y = ax^2 + bx + c$ ➤ Second differences ➤ Parabola 	p. 136 #1 2 4 5ab 6 7	
	3.2	Characteristics of Quadratic Relations <ul style="list-style-type: none"> ➤ Axis of symmetry ➤ Vertex ➤ Maximum/minimum value 	p. 145 # 1-6, 7ef, 9ac	
	3.3	Factored form of a Quadratic Relation <ul style="list-style-type: none"> ➤ $y = a(x - s)(x - t)$ 	p. 156 # 4ae 6ace 7ac 10 12 Mastery # 6	
	3.4 3.5	Quadratic Models using Factored Form and Standard Form	p. 176 # 8, 9 p. 167 # 11d, 12d, 15	
	6.1	Solving Quadratic Equations by Factoring <ul style="list-style-type: none"> ➤ $ax^2 + bx + c = 0$ 	p. 320 #3-8 (select ones; minimum 2 of each)	
	6.1 & 5.5	Solving Quadratic Equations (Application Problems) <ul style="list-style-type: none"> ➤ Projectile problems ➤ Area/measurement problems ➤ Financial problems ➤ Number/integer problems 	Handouts Quiz	
	3.6	Comparing Linear, Quadratic & Exponential	p. 182 # 3,4, 6	
		Review for Test	p. 185 # 1 3 5 8-12 14bdf 15 to 18 19abde p. 320 # 5ace 6ace 10 11	
Unit Test on _____				

Mastery practice: <https://sites.google.com/a/ocdsb.ca/mrslim/home/mpm-2d-10-academic/mastery>

UNIT 5: QUADRATICS 3 - VERTEX FORM

Date	Textbook Reference	Topic	Homework	Questions to redo
	5.1	Stretching/Reflecting Quadratic relations <ul style="list-style-type: none"> ➤ $a > 1 \rightarrow$ vertical stretch \rightarrow narrower ➤ $0 < a < 1 \rightarrow$ vertical compression \rightarrow wider ➤ $a < 0 \rightarrow$ reflection in x-axis 	p. 256 # 1, 2bd, 3c Mastery # 7	
	5.2	Translations of Quadratic Relations <ul style="list-style-type: none"> ➤ $k > 0 \rightarrow$ vertical translation/shift up ➤ $k < 0 \rightarrow$ vertical translation/shift down ➤ $h > 0 \rightarrow$ horizontal translation/shift right ➤ $h < 0 \rightarrow$ horizontal translation/shift left 	p. 262 # 1odd, 2, 4ef	
	5.3	Graphing Quadratics in Vertex Form <ul style="list-style-type: none"> ➤ $y = a(x - h)^2 + k$ and Vertex (h, k) 	p. 269 # (4, 5)odd, 6, 8	
	5.4	Quadratic Models in Vertex Form <ul style="list-style-type: none"> ➤ Finding equation given vertex & a point ➤ Vertex from Zeros ➤ Vertex to Standard 	p. 270 # 11, 16, 17 p. 280 # 1 ace #3-6 7 17 18	
	5.6	Partial Factoring to find vertex	p. 301 # 4 5cef 7cef 9 11 to 13	
	6.2 & 6.3	Completing the Square for Optimal value <ul style="list-style-type: none"> ➤ perfect squares 	p. 331 # 2,3, 5, 8, 11	
	6.4	The Quadratic Formula <ul style="list-style-type: none"> ➤ $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ 	p. 343 # 4ef, 5f, 9bd, 10cd Quiz	
	6.5	The Discriminant for # & nature of roots <ul style="list-style-type: none"> ➤ - no roots, 1 root, or 2 roots 	p. 350 # 3bcd, 4, 5bcd, 7 Mastery # 8	
	6.6	Solving Problems	p. 344 # 13, 16 p. 357 # 2, 3, 5 p. 357 # 7, 9, 10, 11, 14 Handout	
		Review for Test	p. 304 # 1 to 5 8cd 9 15 -17 p. 361 # 3bdf 4bdf 5-7 8ace 9 10 11ace 12ab 13 14 16	
Unit Test on _____				

UNIT 6: TRIGONOMETRY

Date	Textbook Reference	Topic	Homework	Questions to redo
	7.1 & 7.2	Congruent and Similar Triangles <ul style="list-style-type: none"> ➤ scale factor ➤ corresponding sides/angles ➤ proportions ➤ angle of elevation/depression 	p. 378 #4ac 6 8c 11 p. 386 # 4 6 9 12 Handout Mastery # 9	
	7.3 7.4	The Primary Trigonometric Ratios <ul style="list-style-type: none"> ➤ sine SOH, cosine CAH, tangent TOA, and inverses for angles 	Handout	
	7.5 7.6	Solving Right Triangles <ul style="list-style-type: none"> ➤ solving for sides, angles ➤ angle of elevation or depression 	p. 403 #8a,10,13ab p. 412 # 2,3,7,10, 11	
	8.1 8.2	The Sine Law <ul style="list-style-type: none"> ➤ $\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$ 	p. 427 #2ac p. 433 # 2,5ac,6,8,11,15	
	8.3 8.4	The Cosine law <ul style="list-style-type: none"> ➤ $c^2 = a^2 + b^2 - 2ab\cos C$ 	p.438 #2ac p. 443 # 2, 5ac,7,8,12,13	
	8.2 8.4 8.5	Applications of acute triangle trigonometry <ul style="list-style-type: none"> ➤ solving problems using sine/ cosine law 	p. 450 # 4-7, 12, 14 Mastery # 10	
		Review for Test	p. 418 #1-9 p. 454 #1 2 4 to 7	
Unit Test on _____				

Mastery practice: <https://sites.google.com/a/ocdsb.ca/mrslim/home/mpm-2d-10-academic/mastery>